

## INTERNATIONAL SEARCH REPORT

International Application No.  
PCT/EP2004/007248

A. CLASSIFICATION OF SUBJECT MATTER				
C07D215/12	G01N33/58	C07D215/14	C07D215/20	C07D215/38
C07D401/12	C07D405/12	C07D221/18	C07D471/04	C07D491/04
C07D491/14	C07D491/22			

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
C07D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PANCHUK-YOLOSHINA, NATALIYA ET AL: "Alexa dyes, a series of new fluorescent dyes that yield exceptionally bright, photostable conjugates" JOURNAL OF HISTOCHEMISTRY AND CYTOCHEMISTRY 47(9), 1179-1188 CODEN: JHCYAS; ISSN: 0022-1554, 1999, XP002360485 the entire document, specifically page 1180, Column 1, lines 18-21 and the last paragraph; and page 1182, the compound "Alexa 430"	13, 16-18, 22-26
X	WO 02/099077 A2 (PROTEOLOGICS, INC., USA) 12 December 2002 (2002-12-12) the entire document; specifically page 28, the compound "Fluorescent coumarin 488"	17,18, 22-26

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

## \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the International filing date
- \*L\* document which may throw doubt on priority, claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the International filing date but later than the priority date claimed

- \*T\* later document published after the International filing date but which did not contribute to the appearance of the invention and did not understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- \*Z\* document member of the same patent family

Date of the actual completion of the international search  22 December 2005	Date of mailing of the International search report  05/01/2006
Name and mailing address of the ISA European Patent Office, P.B. 6816 Potsdamer 2 DE - 1020 HY FRANKFURT Tel. (+49-70) 940-2040, Tx. 51 051 epo N, Fax. (+49-70) 940-3016	Authorized officer  Fink, D

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP2004/007248

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Description of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE CAPLUS 'Online! CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; BAR, VILMOS ET AL: "Dihydroquinolinemethanesulfonic acid derivatives" XP002360487 retrieved from STN Database accession no. 1986:497341 the compounds with the registry numbers: '103996-52-7' - '103996-65-2' abstract -& HU 188 100 B (MATERIAL VEGYIPARI SZOEVETKEZET, HUNG.) 28 March 1986 (1986-03-28)	6,11,12
X	GB 2 044 258 A (CHINON GYOGYSZER ES VEGYESZETI TERMEK GyARA RT) 15 October 1980 (1980-10-15) The entire document, specifically example 1	1-3,6
X	GB 2 054 582 A (MATERIAL VEGYIPARI SZOEVETKEZET; HUMAN OLTOANYAGTERMELO ES KUTATO INTE) 18 February 1981 (1981-02-18) The entire document; specifically the examples	1-3,5,6, 11,12
X	WO 92/07833 A (BAER, VILMOSNEE, (LEGAL REPRESENTATIVE OF BAER, VILM; POLLAK, ZSUZA;) 14 May 1992 (1992-05-14) the entire document; specifically claim 1 and example 3	1-3,6
X	WO 88/08420 A (MATERIAL VEGYIPARI KISSZOEVETKEZET) 3 November 1988 (1988-11-03) the entire document, specifically, claim 1 and example 6	1-3,6
X	WO 87/00048 A (FERRIS EPITOEPARI) 15 January 1987 (1987-01-15) the entire document; specifically the connections with the formula (I) and the examples	6,12
X	GB 2 148 917 A (* KODAK LIMITED) 5 June 1985 (1985-06-05) claims 1,2 page 1, lines 59-61	1-3,6,7
X	GB 2 148 918 A (* KODAK LIMITED) 5 June 1985 (1985-06-05) claims 1,2 page 2, line 49 - line 52	1-3,6,7

-/-

## INTERNATIONAL SEARCH REPORT

International Application No.  
PCT/EP2004/007248

## C (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 2 148 919 A (* KODAK LIMITED) 5 June 1985 (1985-06-05) claims 1,2 page 2, line 50 - line 53	1-3,6,7
X	GB 2 148 920 A (* KODAK LIMITED) 5 June 1985 (1985-06-05) claims 1,2 page 2, line 41 - line 43	1-3,6,7
A	WO 99/15517 A (MOLECULAR PROBES, INC; MAO, FEI; LEUNG, WAI-YEE; HAUGLAND, RICHARD, P) 1 April 1999 (1999-04-01) cited in the application the whole document	1-28

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No.  
PCT/EP2004/007248

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 02099077	A2	12-12-2002	NONE		
HU 188100	B	28-03-1986	HU	34450 A2	28-03-1985
GB 2044258	A	15-10-1980	AT AT BE BG BG BR CA CH CS DE DK ES FI FR HU IL IT JP JP JP NL PL RO SE SE SU SU US YU	375069 B 95880 A 881836 A1 33280 A3 35240 A1 8001025 A 1138876 A1 644104 A5 229654 B2 3005874 A1 73880 A 8102557 A1 800499 A 2449681 A1 182010 B 59406 A 1128235 B 1000950 B 1520775 C 55115870 A 8001019 A 222117 A1 78158 A1 452319 B 8001235 A 888818 A3 975710 A1 4363910 A 45480 A1	25-06-1984 15-11-1983 16-06-1980 14-01-1983 15-03-1984 29-10-1980 04-01-1983 13-07-1984 14-05-1984 04-09-1980 22-08-1980 16-04-1981 22-08-1980 19-09-1980 28-12-1983 30-11-1982 28-05-1986 10-01-1989 29-09-1989 06-09-1980 25-08-1980 01-12-1980 01-02-1982 23-11-1987 22-08-1980 07-12-1981 23-11-1982 14-12-1982 30-09-1983
GB 2054582	A	18-02-1981	AR AT AT BE BR CA CH CS DD DE DK FI FR HU IT JP JP JP JP JP JP NL PL PL	223884 A1 375647 B 354480 A 884187 A1 8004170 A 1138873 A1 649536 A5 227309 B2 151872 A5 3025656 A1 288080 A 802153 A 2460933 A1 185208 B 1132511 B 1419300 C 56039070 A 62025142 B 1492123 C 62187457 A 63035622 B 8003839 A 225476 A1 232265 A1	30-09-1981 27-08-1984 15-01-1984 03-11-1980 21-01-1981 04-01-1983 31-05-1985 16-04-1984 11-11-1981 22-01-1981 07-01-1981 07-01-1981 30-01-1981 28-12-1984 02-07-1986 14-01-1988 14-04-1981 01-06-1987 20-04-1989 15-08-1987 15-07-1988 08-01-1981 27-11-1981 29-03-1982

## INTERNATIONAL SEARCH REPORT

International Application No.

PCT/EP2004/007248

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
GB 2054582	A	SE	447899 B	22-12-1986
		SE	8004973 A	07-01-1981
		SI	990083 A3	15-01-1983
		SU	1108092 A1	15-08-1984
		US	4356306 A	26-10-1982
		YU	174180 A1	30-09-1983
WO 9207833	A	14-05-1992	AU	8844091 A
			US	5202338 A
WO 8808420	A	03-11-1988	AU	1627088 A
			CA	1329602 C
			DD	268687 A5
			EP	0310648 A1
			HU	200165 B
			US	4994469 A
WO 8700048	A	15-01-1987	EP	0229812 A1
			HU	194734 B
			JP	63500595 T
GB 2148917	A	05-06-1985	NONE	
GB 2148918	A	05-06-1985	NONE	
GB 2148919	A	05-06-1985	NONE	
GB 2148920	A	05-06-1985	NONE	
WO 9915517	A	01-04-1999	AT	247098 T
			AU	750380 B2
			AU	9504698 A
			CA	2272403 A1
			DE	69817165 D1
			DE	69817165 T2
			EP	0966458 A1
			JP	2001508494 T
			US	6130101 A
				15-08-2003
				18-07-2002
				12-04-1999
				01-04-1999
				18-09-2003
				26-02-2004
				29-12-1999
				26-06-2001
				10-10-2000

## INTERNATIONAL SEARCH REPORT

International Application No.  
PCT/EP2004/007248

A. CLASSIFICATION OF SUBJECT MATTER				
C07D215/12	G01N33/58	C07D215/14	C07D215/20	C07D215/38
C07D401/12	C07D405/12	C07D221/18	C07D471/04	C07D491/04
C07D491/14	C07D491/22			

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
C07D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PANCHUK-VOLOSHINA, NATALIYA ET AL: "Alexa dyes, a series of new fluorescent dyes that yield exceptionally bright, photostable conjugates" JOURNAL OF HISTOCHEMISTRY AND CYTOCHEMISTRY, 47(9), 1179-1188 CODEN: JHCYAS; ISSN: 0022-1554, 1999, XP002360485 das ganze Dokument; in besonderen, Seite 1180, Spalte 1, Zeilen 18-21 und der letzte Absatz; und Seite 1182, die Verbindung "Alexa 430"	13, 16-18, 22-26
X	WO 02/099077 A2 (PROTEOLOGICS, INC., USA) 12 December 2002 (2002-12-12) das ganze Dokument; in besonderen Seite 28, die Verbindung "Fluorescent coumarin 488"	17,18, 22-26

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

## \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*B\* earlier document but published on or after the International filing date
- \*C\* document which may throw doubt on priority, distinguish or be used to explain the publication date of another citation or other special reason (as specified)
- \*D\* document referring to an oral disclosure, use, exhibition or other means
- \*E\* document published prior to the International filing date but later than the priority date claimed

\*F\* later document published after the International filing date or priority date and not in conflict with the application but which understand the principle or theory underlying the invention

\*G\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*H\* document of particular relevance; the claimed invention can be considered novel or can be considered to involve an inventive step when the document is taken together with one or more other such documents, such combination being obvious to a person skilled in the art.

\*I\* document member of the same patent family

Date of the actual completion of the International search

22 December 2005

Date of mailing of the International search report

05/01/2006

Name and mailing address of the ISA

European Patent Office, P.B. 5618 Patentam 2  
D-8036 MUNICH 2  
Tel. (+49-89) 269-2004, Fax: 51 651 890 61,  
Fax: (+49-89) 269-9016

Authorized officer

Fink, D

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP2004/007248

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>DATABASE CAPLUS 'Online'            CHEMICAL ABSTRACTS SERVICE, COLUMBUS,            OHIO, US;            BAR, VILMOS ET AL:            "Dihydroquinolinemethanesulfonic acid            derivatives"            XP002360487            retrieved from STN            Database accession no. 1986:497341            die Verbindungen mit den Registry-Nummern:            '103996-52-7' - '103996-65-2'            abstract            -&amp; HU 188 100 B (MATERIAL VEGYIPARI            SZOVETKEZET, HUNG.)            28 March 1986 (1986-03-28)</p>	6,11,12
X	<p>GB 2 044 258 A (CHINION GYOGYSZER ES            VEGYESZETI TERMEKEK GYARA RT)            15 October 1980 (1980-10-15)            das ganze Dokument; im besonderen, das            Beispiel 1</p>	1-3,6
X	<p>GB 2 054 582 A (MATERIAL VEGYIPARI            SZOVETKEZET; HUMAN OLTOANYAGTERMELO ES            KUTATO INTE) 18 February 1981 (1981-02-18)            das ganze Dokument; im besonderen, die            Beispiele</p>	1-3,5,6, 11,12
X	<p>WO 92/07833 A (BAER, VILMOSNEE, (LEGAL            REPRESENTATIVE OF BAER, VILM; POLLAK,            ZSUZA;) 14 May 1992 (1992-05-14)            das ganze Dokument; im besonderen,            Anspruch 1 und Beispiel 3</p>	1-3,6
X	<p>WO 88/08420 A (MATERIAL VEGYIPARI            KISSZOVETKEZET)            3 November 1988 (1988-11-03)            das ganze Dokument; im besonderen,            Anspruch 1 und Beispiel 6</p>	1-3,6
X	<p>WO 87/00048 A (FERRIS EPITOIEIPARI)            15 January 1987 (1987-01-15)            das ganze Dokument; im besonderen, die            Verbindungen der Formel I) und die            Beispiele</p>	6,12
X	<p>GB 2 148 917 A (* KODAK LIMITED)            5 June 1985 (1985-06-05)            claims 1,2            page 1, lines 59-61</p>	1-3,6,7
X	<p>GB 2 148 918 A (* KODAK LIMITED)            5 June 1985 (1985-06-05)            claims 1,2            page 2, line 49 - line 52</p>	1-3,6,7

-/-

## INTERNATIONAL SEARCH REPORT

International Application No.  
PCT/EP2004/007248

C (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 2 148 919 A (* KODAK LIMITED) 5 June 1985 (1985-06-05) claims 1,2 page 2, line 50 - line 53	1-3,6,7
X	GB 2 148 920 A (* KODAK LIMITED) 5 June 1985 (1985-06-05) claims 1,2 page 2, line 41 - line 43	1-3,6,7
A	WO 99/15517 A (MOLECULAR PROBES, INC; NAO, FEI; LEUNG, WAI-YEE; HAUGLAND, RICHARD, P) 1 April 1999 (1999-04-01) cited in the application the whole document	1-28

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No.  
PCT/EP2004/007248

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
WO 02099077	A2	12-12-2002	NONE			
HU 188100	B	28-03-1986	HU	34450 A2		28-03-1985
GB 2044258	A	15-10-1980	AT AT BE BG BG BR CA CH CS DE DK ES FI FR HU IL IT JP JP JP NL PL RO SE SE SU SU US YU	375069 B 95880 A 881836 A1 33280 A3 35240 A1 8001025 A 1138876 A1 644104 A5 229654 B2 3005874 A1 73880 A 8102557 A1 800499 A 2449681 A1 182010 B 59406 A 1128235 B 1000950 B 1520775 C 55115870 A 8001019 A 222117 A1 78158 A1 452319 B 8001235 A 888818 A3 975710 A1 4363910 A 45480 A1	25-06-1984 15-11-1983 16-06-1980 14-01-1983 15-03-1984 29-10-1980 04-01-1983 13-07-1984 14-05-1984 04-09-1980 22-08-1980 15-04-1981 22-08-1980 19-09-1980 28-12-1983 30-11-1982 28-05-1986 10-01-1989 29-09-1989 06-09-1980 25-08-1980 01-12-1980 01-02-1982 23-11-1987 22-08-1980 07-12-1981 23-11-1982 14-12-1982 30-09-1983	
GB 2054582	A	18-02-1981	AR AT AT BE BR CA CH CS DD DE DK FI FR HU IT JP JP JP JP JP JP JP JP NL PL PL	223884 A1 375647 B 354480 A 884187 A1 8004170 A 1138873 A1 649536 A5 227309 B2 151872 A5 3025656 A1 288080 A 802153 A 2460933 A1 185208 B 1132511 B 1419300 C 56039070 A 62025142 B 1492123 C 62187457 A 63035622 B 8003839 A 225476 A1 232265 A1	30-09-1981 27-08-1984 15-01-1984 03-11-1980 21-01-1981 04-01-1983 31-05-1985 16-04-1984 11-11-1981 22-01-1981 07-01-1981 07-01-1981 30-01-1981 28-12-1984 02-07-1986 14-01-1988 14-04-1981 01-06-1987 20-04-1989 15-08-1987 15-07-1988 08-01-1981 27-11-1981 29-03-1982	

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No.

PCT/EP2004/007248

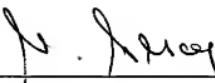
Patent document cited in search report	Publication date		Patent family member(s)	Publication date
GB 2054582	A		SE 447899 B SE 8004973 A SU 990083 A3 SU 1108092 A1 US 4356306 A YU 174180 A1	22-12-1986 07-01-1981 15-01-1983 15-08-1984 26-10-1982 30-09-1983
WO 9207833	A	14-05-1992	AU 8844091 A US 5202338 A	26-05-1992 13-04-1993
WO 8808420	A	03-11-1988	AU 1627088 A CA 1329602 C DE 268687 A5 EP 0310648 A1 HU 200165 B US 4994469 A	02-12-1988 17-05-1994 07-06-1989 12-04-1989 28-04-1990 19-02-1991
WO 8700048	A	15-01-1987	EP 0229812 A1 HU 194734 B JP 63500595 T	29-07-1987 28-03-1988 03-03-1988
GB 2148917	A	05-06-1985	NONE	
GB 2148918	A	05-06-1985	NONE	
GB 2148919	A	05-06-1985	NONE	
GB 2148920	A	05-06-1985	NONE	
WO 9915517	A	01-04-1999	AT 247098 T AU 750380 B2 AU 9504698 A CA 2272403 A1 DE 69817165 D1 DE 69817165 T2 EP 0966458 A1 JP 2001508494 T US 6130101 A	15-08-2003 18-07-2002 12-04-1999 01-04-1999 18-09-2003 26-02-2004 29-12-1999 26-06-2001 10-10-2000

VERIFICATION OF A TRANSLATION

I, Ursula Besch, resident of the United States, residing at 179-55 80<sup>th</sup> Rd, Jamaica Estates, N.Y. 11432, depose and state that:

1. I am familiar with the English and German languages.
2. I have read the attached International Search Report regarding PCT patent application no. PCT/EP2004/007248.
3. The hereto attached English language text is an accurate translation thereof.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued hereon.



---

URSULA BESCH

Date: June 5, 2006